

FIG. 1

...GAGCCTGGCG

1 6 11 16 21 26 31 36 41 46

SEQ ID NO: 2 1-50 SEKSEEINEKDIRKKSELQGTALGNIKQIYYYNSKAITSSEKSADQFLTN

51-100 TLIFKGFFTGHPWYNDLVDIGSTAATSEYE~~GSSV~~DLYGAYGYQCAGGT

101-150 PNKTACMYGGVTLHDNNRNLTEERKVPINLWIDGKQTIVPVIDKVRKTSKREV

151-200 TVQELDIQARHYLHGKFGLYNSDSFGGKVQRGGLIVFHSSEGSTVSYDLD

201-233 AQGQYPDTLLRIYRDNTTISSTSISLYTT

FIG. 2

SEQ ID NO: 3 SEA E18: SEKSEEINEKDLRKKSSELQGTALGNLQIYLYN---EKAITENKESEDDQF
SEQ ID NO: 4 SEA : SEKSEEINEKDLRKKSSELQGTALGNLQIYLYN---EKAITENKESEDDQF
SEQ ID NO: 5 SED : ALHKKSELLSSTALNNMKHSYADA---NPITGANKSTGDQF
SEQ ID NO: 6 SEH : EDLHDKSELLTLALLANAYGQYNHPFTIKENIKSDEISGEKDL

SEA E18: LENTLLEFKGFFTCHPWNNDLLVDLGSKDATNKYKGKVDLYGAYGYQCA
SEA : LQHTTLEFKGFFTDHSWYNDLLVDLFSKDIVDKYKGKVDLYGAYGYQCA
SED : LENTLLYKAFF----LLINFNSAEMAQHFKSKNVDVYAIRYAAAC
SEH : IFRNQGDSG----NDLRVFKFATADLAQKFKNKNVDIYGAFFYYKCE

SEA E18: GGTTPNKTACMYGGVTLDNNRNLTEEKVKPINLWIDGKQTTVPIDKVKTSK
SEA : GGTTPNKTACMYGGVTLDNNRNLTEEKVKPINLWIDGKQONTVPPLFTVRINK
SED : ----RTACTYGGVTPHAGNALKARKKIPINLNWIGVQKEVSLDKVQTDK
SEH : KISENISECLYGGTTLN-SEKLAQERVIGANVWVDGIIQKETE-LIRTNK

SEA E18: KEVTVQELDQARYHLHGKFEGLYNSDSFGGKVQRGGLIVFHSSSEGSTVSYD
SEA : KNVTVQELDQARRYLQEKYNYLNSDVEDGKVRQGLIVEHTSTEPSVNYD
SED : KNVTVQELDAQARRYLQKDILKLYN-----A1QRGKLEFDSSAAASKVSYD
SEH : KNVTLQELDIKIRKILSDKYYKIY---KDSEISKGLIEFDMKTPRDYSEF

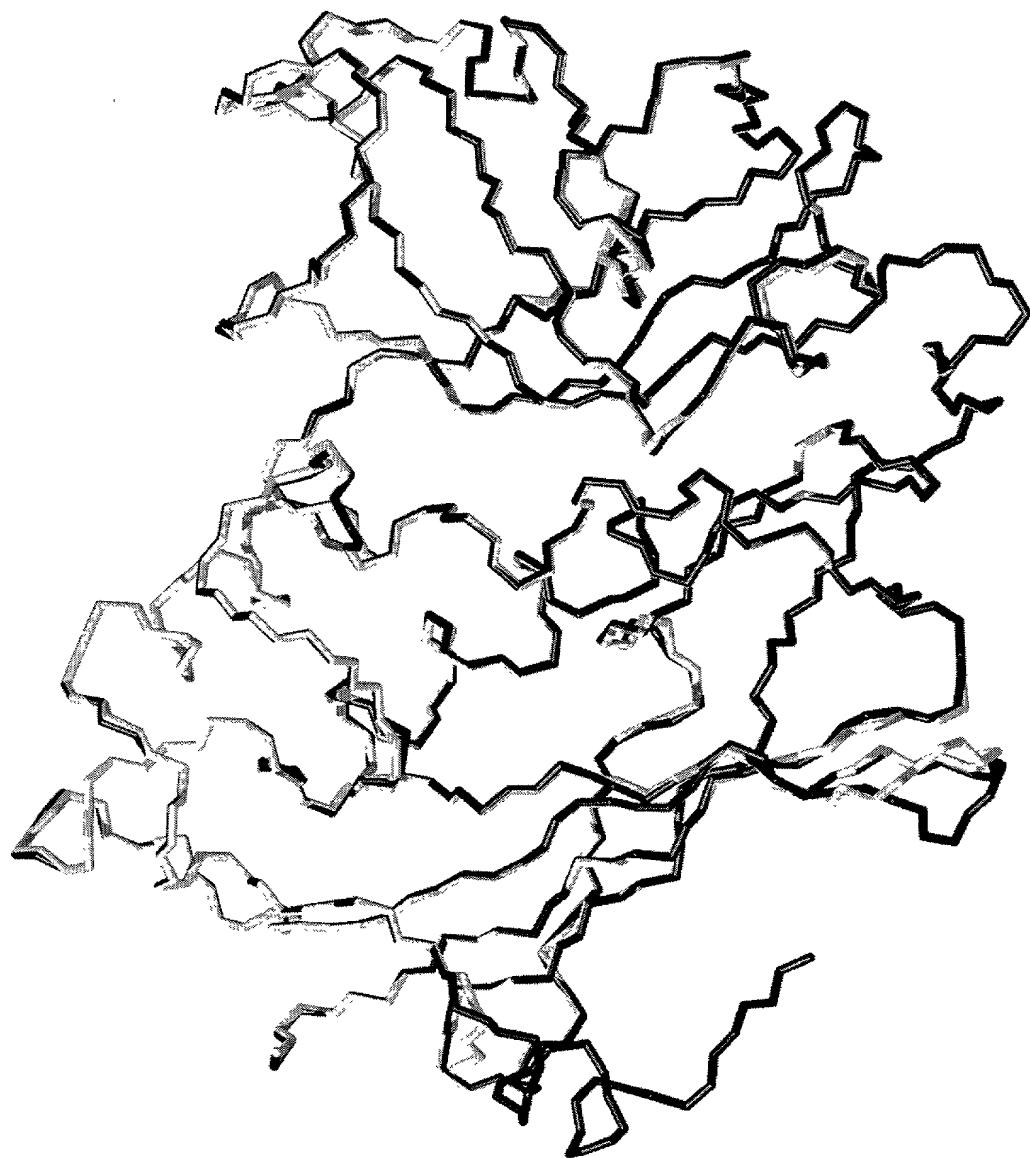
SEA E18: LFDAQGQYPDTLLRIYRDNKTTINSEN-LHIALYLYTT
SEA : LFGAQGQYSNTLLRIYRDNKTTINSEN-HIDIYLTS
SED : LFDVAGDFPEKQLRIYSDNKTLSHEH-LHIDIYLYE
SEH : LYDLKGENDYEIDKIIYEDNKTLSDDISHIDVNLYTKKV

FIG. 3

SEQ ID NO: 2	SEA/E-120	A	B	
SEQ ID NO: 3	SEA/E-18	SEKSEEINEKDLRKKSSELQGTA GNLKQIYYNSKAITSSEKSADQELTNT LLFKGFFTG 60	SEKSEEINEKDLRKKSSELQGTA GNLKQIYYNEKAITENKESDDQFLENTL LFKGFFTG 60	
SEQ ID NO: 7	SEE	SEKSEEINEKDLRKKSSELQRN ALSNLRQIYYNEKALENKESDDQELTNT LLFKGFFTG 60	SEKSEEINEKDLRKKSSELQGTA GNLKQIYYNEKAKTE NKESHDQFLQHTILFKGFFTD 60	
SEQ ID NO: 4	SEA	* * * * * * * * * * * * * * * .	* .	
		C		
SEA/E-120		HPWYNDLIVDLGSTATSEYE GSSVVDLYGAYGYQCAGGTPNKTACMYGG VTLLHDNNRLT 120		
SEA/E-18		HPWYNDLIVDLGSKD ATNKYKGKKV DLYGAYGYQCAGGTP PNKTACMYGG VTLLHDNNRLT 120		
SEE		HPWYNDLIVDLGSKD ATNKYKGKKV DLYGAYGYQCAGGTP PNKTACMYGG VTLLHDNNRLT 120		
SEA		HSWYNDLIVDFDSK DIVDKYKGKKV DLYGAYGYQCAGGTP PNKTACMYGG VTLLHDNNRLT 120 * . * * * * * * * : . *		
		D		
SEA/E-120		EEKKVPINLWIDGKQT TVPIDKVKTSKKEV TVQELDLQARH YLHGKEGLYN SDSFGGKVQ 180		
SEA/E-18		EEKKVPINLWIDGKQT TVPIDKVKTSKKEV TVQELDLQARH YLHGKEGLYN SDSFGGKVQ 180		
SEE		EEKKVPINLWIDGKQT TVPIDKVKTSKKEV TVQELDLQARH YLHGKEGLYN SDSFGGKVQ 180		
SEA		EEKKVPINLWIDGKQT TVPIDKVKTSKKEV TVQELDLQARH YLHGKEGLYN SDSFGGKVQ 180 * * * * * * * * : * * * * . * * : * * * * * * * * : * * : * . * * * * . * . * * * * .		
		E		
SEA/E-120		RGLIVFHSEG STVSYDLFDAQGQYP DTLLRIYRDNTTIS STSLSISLYTT 233		
SEA/E-18		RGLIVFHSEG STVSYDLFDAQGQYP DTLLRIYRDNTTIS SENHLIA LYTT 233		
SEE		RGLIVFHSEG STVSYDLFDAQGQYP DTLLRIYRDNTTIS SENHLIA LYTT 233		
SEA		RGLIVFH TSTEPSVNYDLFGAQQ YSNTLLRIYRDNTTIS SENHMIDIYLYTS 233 * * * * * : * . * * * * . * * : * * * * * * . * . * * * * . * . * * * * : . * : * . * * * * .		

FIG. 4

FIG. 5



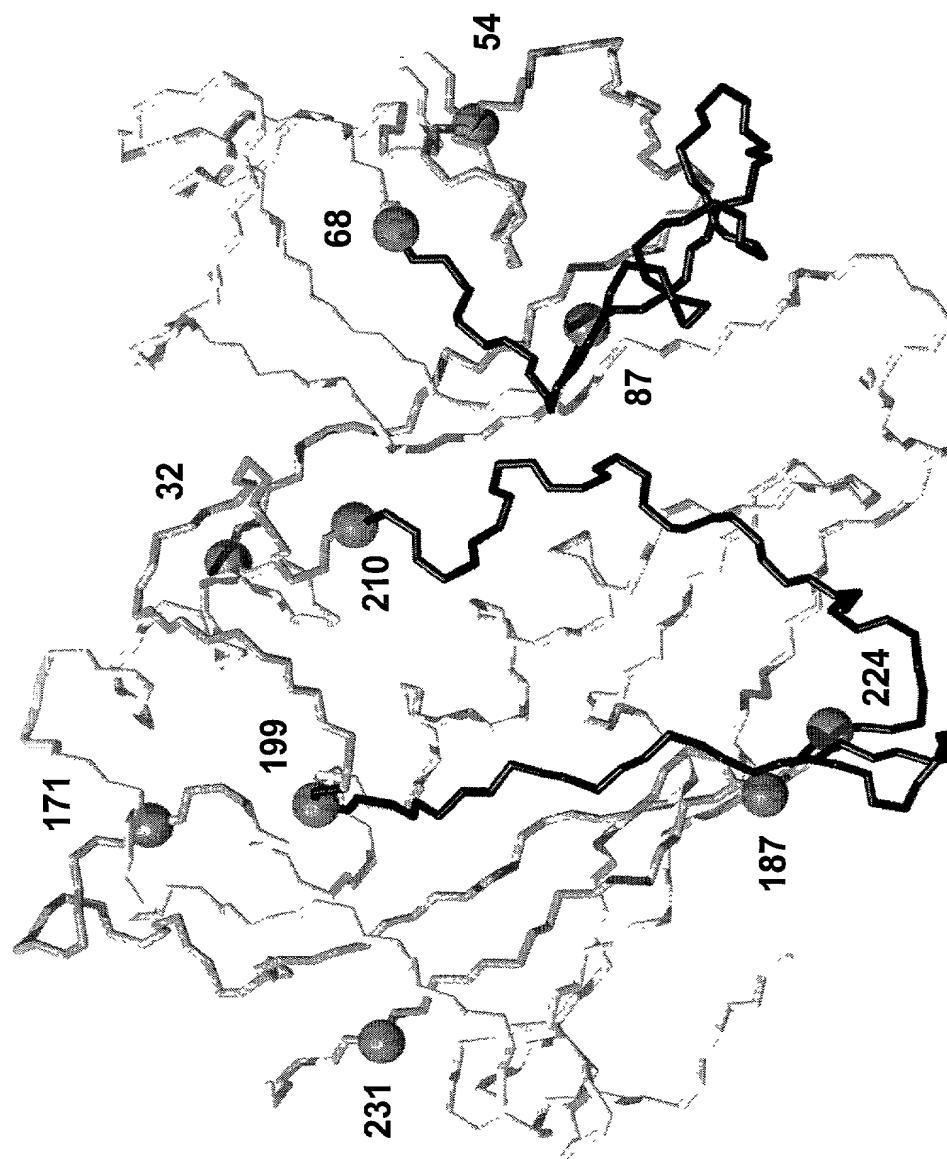


FIG. 6

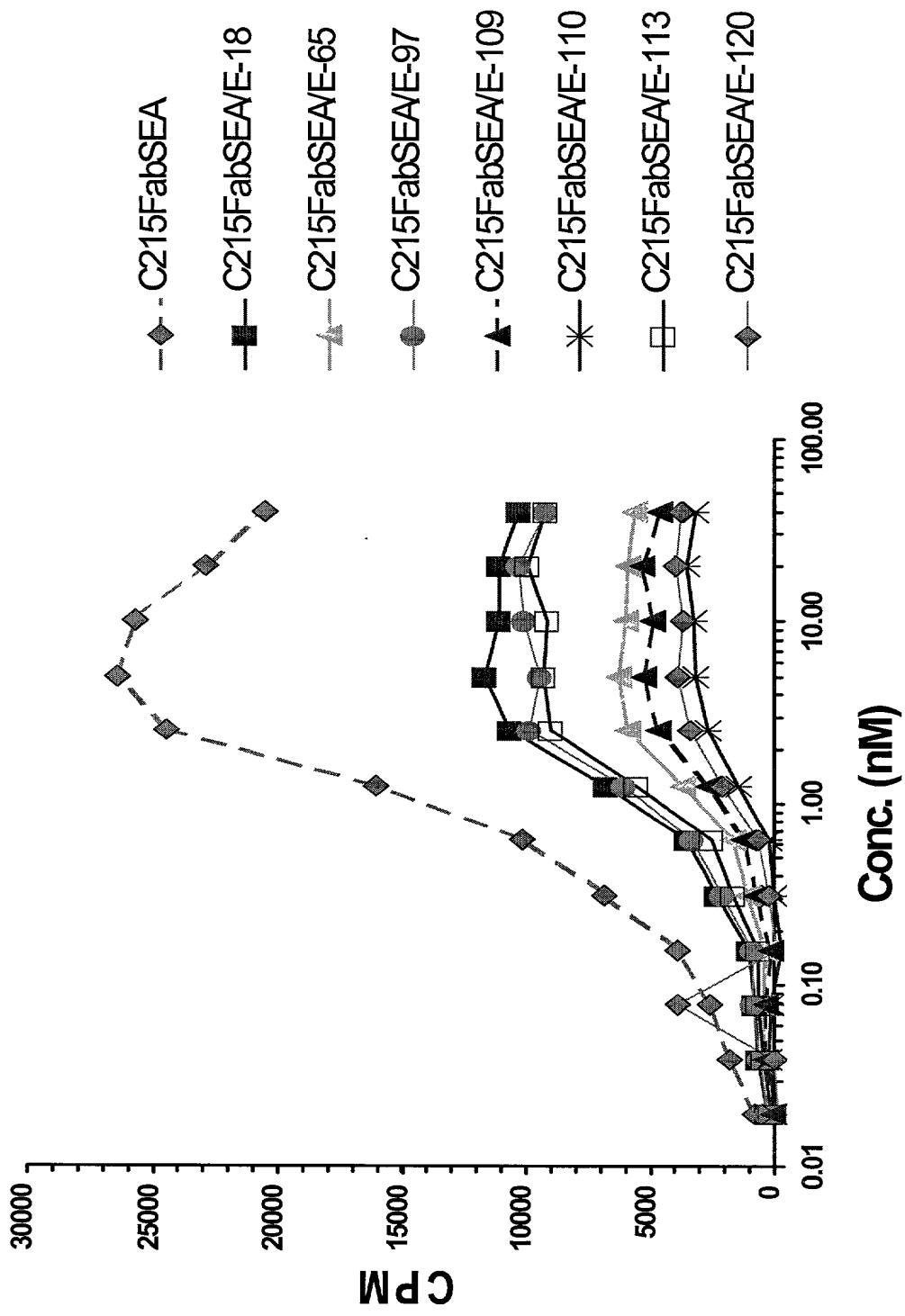


FIG. 7

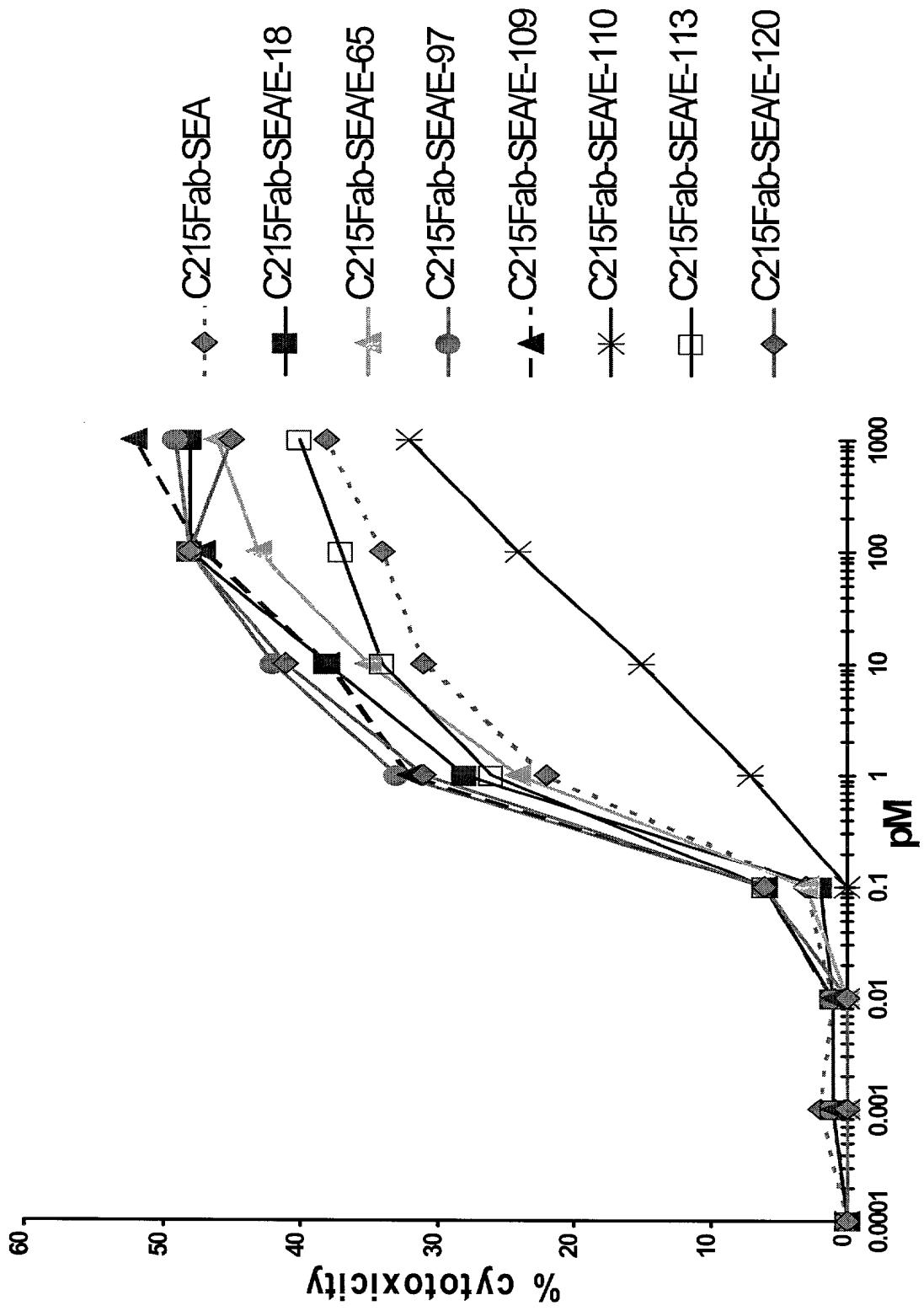


FIG. 8A

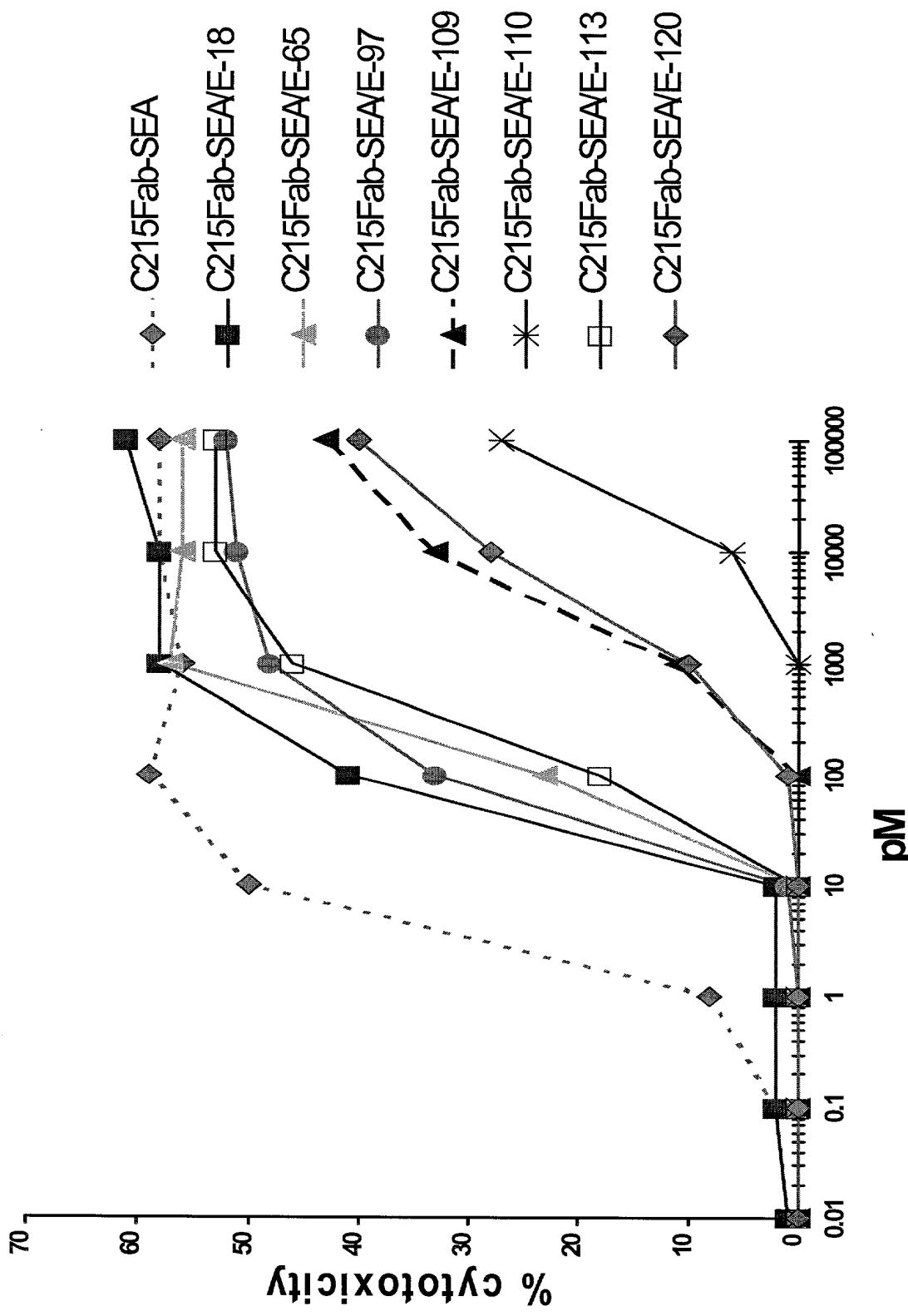


FIG. 8B

FIG. 9



SEQ ID NO:	1-50	ST4 Variable Heavy chain
51-100	EVQLQ QSGPD LVKPG ASVKI SCKAS GYSFT GYMH WVKQS PGKGL EWIGR	
101-150	INPNN GTLIL NQKFK DKATL TVDKS STTAY MELRS LTSED SAVYY CARST	C242 Constant Heavy chain
151-200	MITNY VMDYW QQGTS VTVSS AKRTTP PSVYP LAPGS AAQTN SMVTI GCLVK	
201-250	GYFPE PVTVTW NSGS LSSGV HTPA VLQSD LYTLS SSVTV PSSTW PSETV	SEA/E-120
251-300	TGNVA HPASS TKVDR KIVPR DSGGP SEKSE EINEK DLRRK SELQG TALGN	
301-350	LKQIY YYNSK ATSS EKSAD QFLTN TLIEK GFFTG HPWYN DLLVD LGSTA	
351-400	ATSEY EGSSV DLYGA YYGYQ CAGGT PNKTA CMYGG VTLHD NNRLT EEKKV	
401-450	PINLW IDGKQ TTVPI DKVKT SKKEV TVQEL DLQAR HYLHG KFGLY NSDSE	
451-500	GGKVQ RGLIV FHSSE GSTVS YDLFD AQGQY PDTLL RIYRD NTTIS STSLS	ST4 Variable Light chain
501-550	ISLYL YTTSI VMTQT PTSLL VSAGD RVTIT CKASQ SVSND VAWYQ QKPGQ	
551-600	SPKLL ISYTS SRYAG VPDRF SGSGY GTDFL LTISS VQAED AAVYF CQQDY	
601-650	NSPPT FGGGT KLEIK RADAA PTVSI FPPSS EQLTS GGASV VCFLN NFYPK	
651-672	DINVK WKIDG SERQN GVLNS WTDDQ SKDST YSMSS TLTLT KDEYE RHNSY	C242 Constant Light chain
	TCEAT HKTST SPIVK SFNRN ES	

FIG. 10